POOR LEGIBILITY

ONE OR MORE PAGES IN THIS DOCUMENT ARE DIFFICULT TO READ DUE TO THE QUALITY OF THE ORIGINAL

we need a formal answer to be aware of

KERN COUNTY

FRUITVALE OIL FIELDS

DATE

1. WHAT OTHER REFINERIES OR INDUSTRIES IN THE AREA, WHO MAY HAVE "PAST WASTE DISPOSAL PRACTICES", ARE POTENTIALLY CONTRIBUTING TO OR CREATING GROUNDWATER DEGRADATION PROBLEMS?

2. WHAT IS OUR (STATE) LEGAL AUTHORITY TO PURSUE SUCH INVESTIGATIONS?

3. WERE THESE "PAST WASTE DISPOSAL PRACTICES" UNDER PERMIT/WASTE DISCHARGE REQUIREMENTS FROM OUR AGENCY?

4. WHY ARE WE PURSUING, "CLEANUP AND ABATEMENT ORDERS" AGAINST A REFINERY AND "CEASE AND DESIST ORDERS" AGAINST THE OTHERS? WILL THESE NON-COMPLYING OIL FIELD (AND OTHER DISCHARGERS) BE REQUIRED TO MONITOR AND/OR CLEANUP ANY CONTAMINATION (i.e. SOIL AND GROUNDWATER)?.

5. WHAT RELATIONSHIP DO THESE PAST DISPOSALS HAVE WITH SUPERFUND CLEANUPS (STATE AND FEDERAL)?

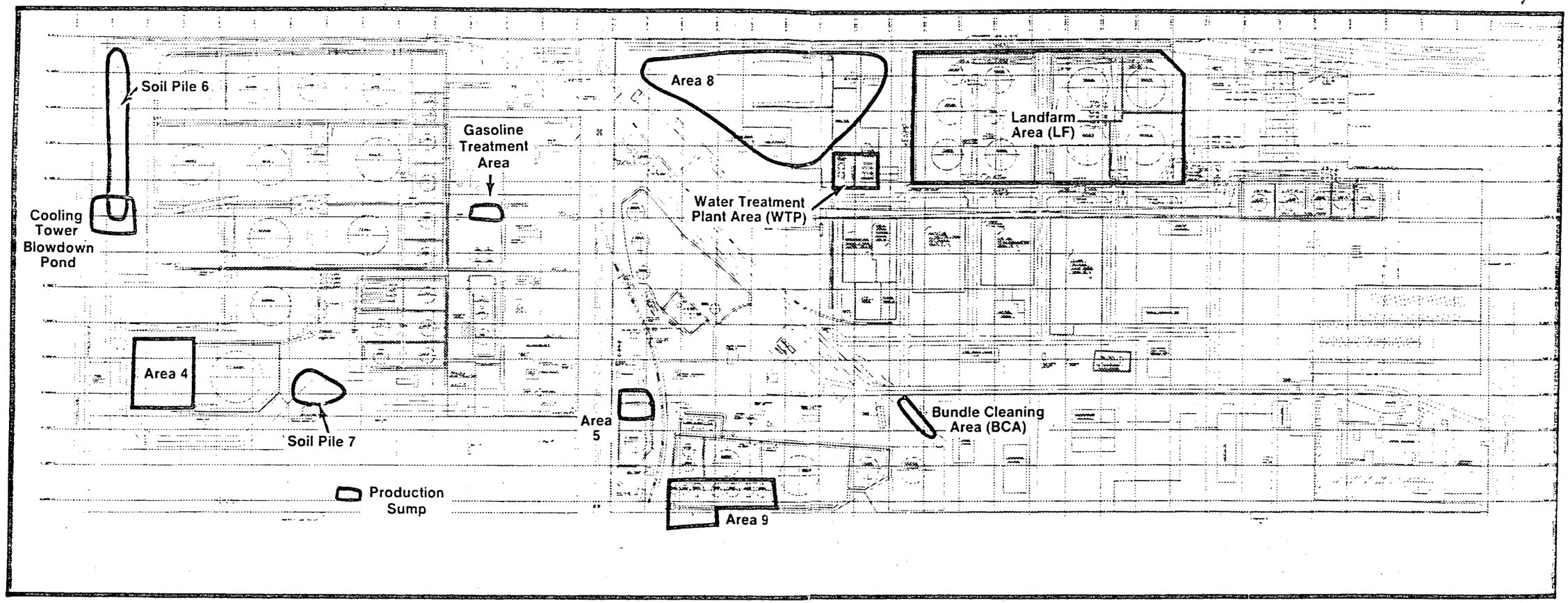
6. HOW WOULD FEDERAL RCRA/CERCLA REGULATIONS TREAT THESE TYPES OF CLEANUPS/INVESTIGATIONS? ALSO WOULD NON-HAZARDOUS (CALIFORNIA DHS) LEVELS SIGNIFICANTLY DEGRADE GROUNDWATER?

7. SINCE THESE REFINERIES ARE WITHIN THE FRUITVALE OIL FIELD, DO WE FEEL THAT THESE NON-COMPLYING OIL FIELD OPERATIONS (i.e. UNLINED SUMPS), ARE CONTRIBUTING TO GROUNDWATER PROBLEMS BELOW THE REFINERIES?

8. HOW DOES THE PROPOSED 205-J STUDY IN THE FRUITVALE AREA, RELATE TO THESE INVESTIGATIONS BY THE REFINEREIS? WHY ARE THESE STUDIES NOT BEING COMBINED? TO WHAT EXTENT ARE THESE INVESTIGATIONS GOING TO BE PURSUED; IS GRMC'S "ADEQUATE APPROACH" FINANCIALLY MORE SIGNIFICANT THAN TOSCO'S OR THE 205 J STUDY?

9. WHAT POTENTIALLY, IS THE END RESULT; ARE WE CONSIDERING THAT EACH REFINERY CLEANUP ONLY THEIR AREA OF INFLUENCE?

10. SINCE THERE ARE MANY REFINERIES AND OTHER SUCH INDUSTIRES THROUGHOUT CALIFORNIA WHO MAY HAVE HAD SIMILAR PAST DISPOSAL PRACTICES, ARE SIMILAR INVESTIGATIONS BY THE OTHER REGIONAL BOARDS BEING PURSUED? IF SO WHAT HAS BEEN THE RESULTS?



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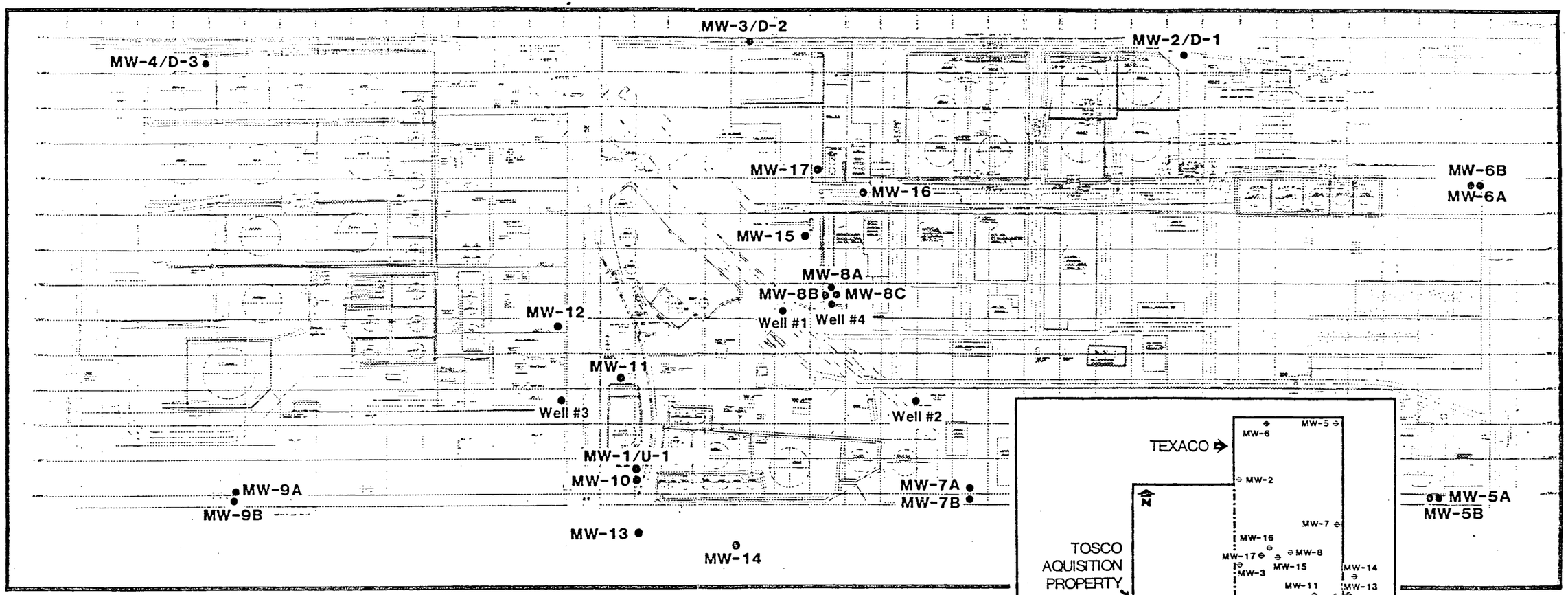
Scale in Feet

Legend

Denotes Approximate Boundary of These Areas



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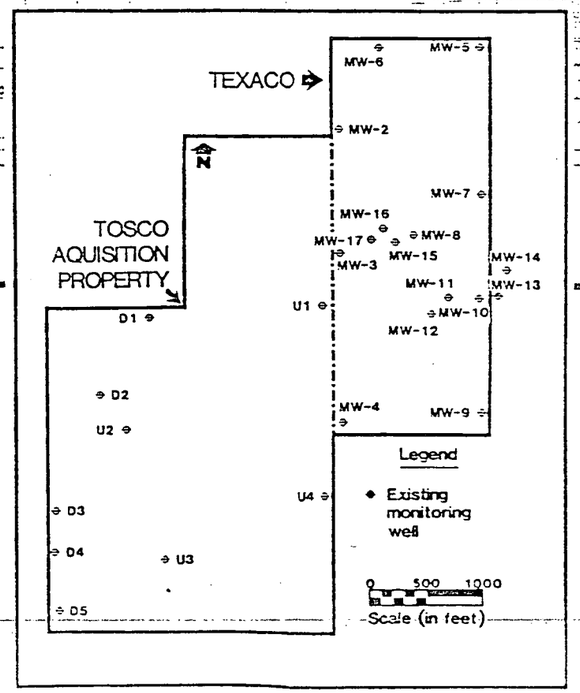
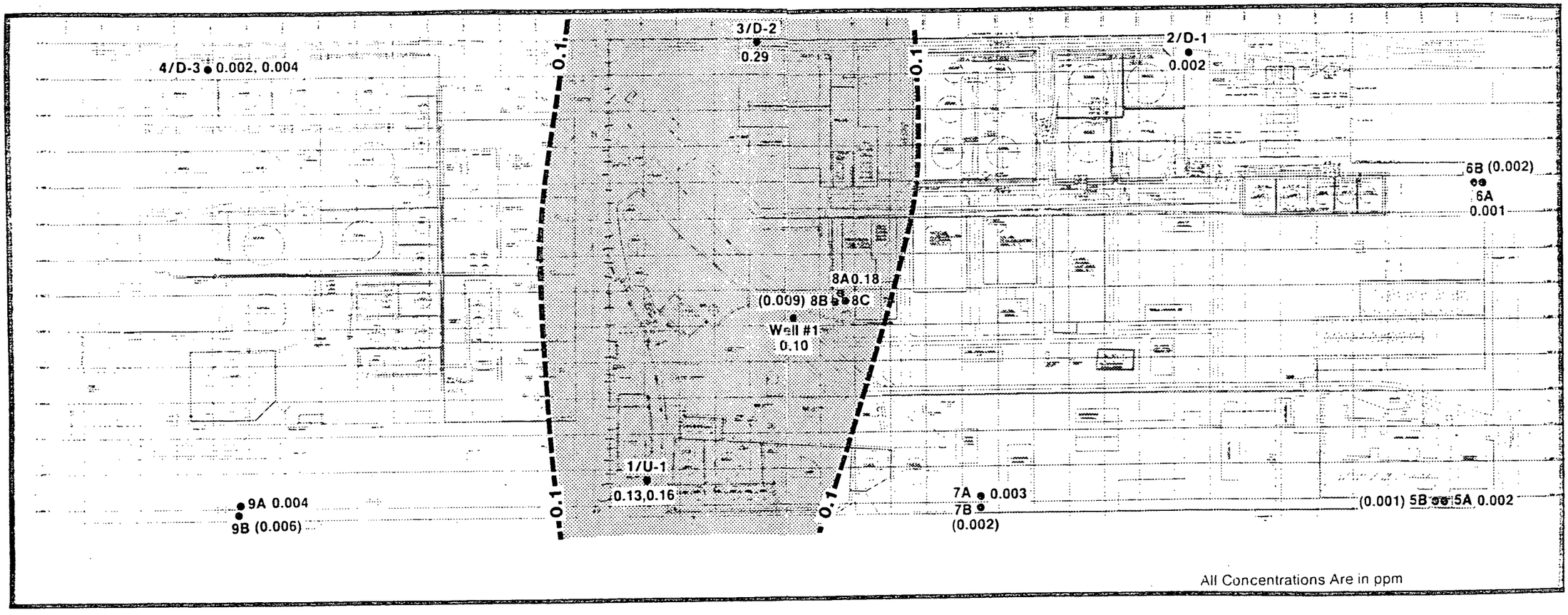
Scale in Feet

Legend

• MW-5A	Monitor Well
A	Denotes Deeper Well of Group
C	Denotes the Shallowest Well
MW-2/D-1	New Well Designation / Old Well Designation

INSET DEPICTING EXISTING MONITORING WELL LOCATIONS ON NEWLY AQUIRED TOSCO PROPERTY





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Scale in Feet

Legend

● 5A	Monitor Well
A	Denotes Deeper Well of Group
C	Denotes the Shallowest Well
2/D-1	New Well Designation / Old Well Designation
(0.006)	Parenthetic Concentrations for the Shallower B-Series Wells
0.13,0.16	Two Concentrations Separated by a Comma Denote Duplicate Analyses

Approximate Boundary of Elevated Arsenic Concentrations in the Groundwater

TABLE 4.2-1

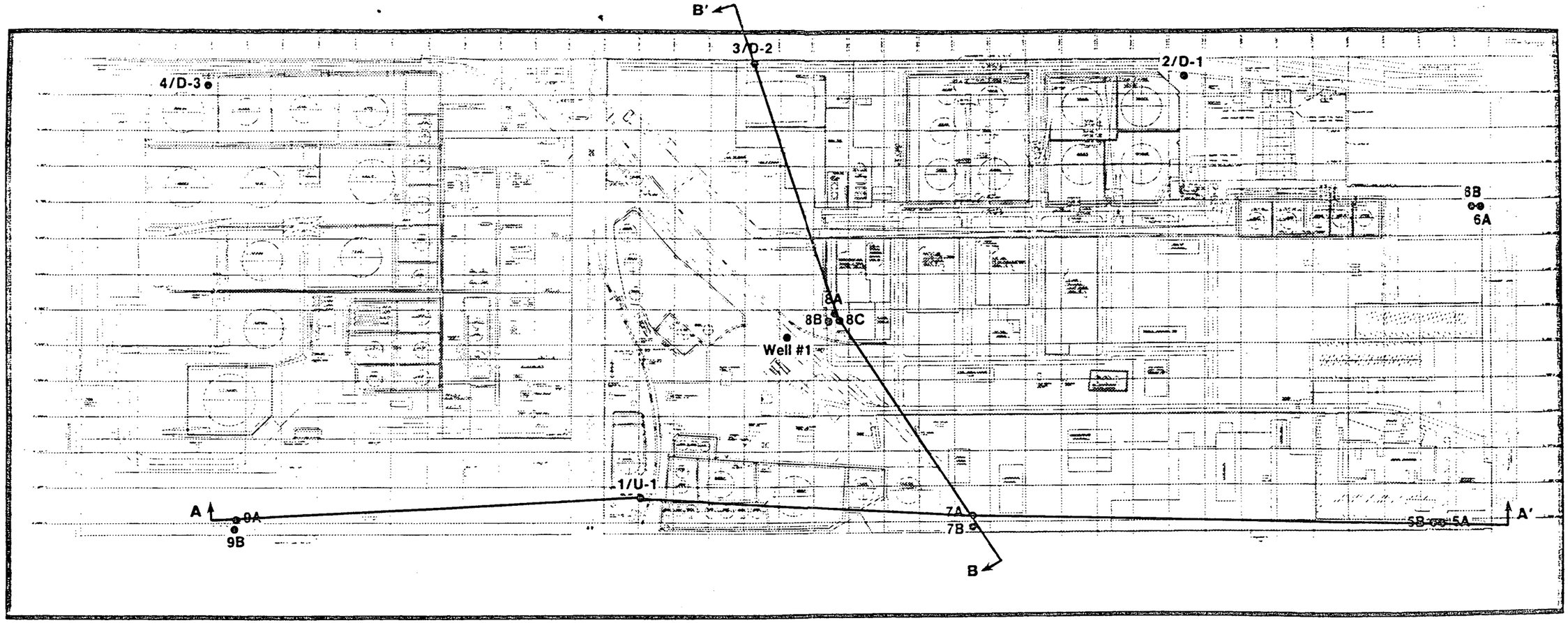
CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

WELL NUMBER [1]	MW-1/U-1			MW-2/D-1		MW-3/D-2		MW-4/D-3			MW-5A	MW-5B	MW-6A	MW-6B	MW-7A	MW-7B	MW-8A	MW-8B	MW-9A	MW-9B	MW-1	MW
		Duplicate (MW-1)	Duplicate (MW-10)						Duplicate (MW-4)	Duplicate (MW-11)												
SAMPLING DATE [2]	10/12/83	01/14/85	01/14/85	10/12/83	01/13/85	10/12/83	01/13/85	10/12/83	01/14/85	01/14/85	01/12/85	01/12/85	01/12/85	01/12/85	01/13/85	01/13/85	01/12/85	01/12/85	01/13/85	01/13/85	12/20/84	
SCREENED INTERVAL (feet)		50.3-60.3		67.3-77.3		64.2-74.2			69-79		55-65	39.5-49.5	61.5-71.5	41.5-51.5	60-70	39-49	60-70	40-50	59.5-69.5	42-52	64-85	506
FIELD ANALYSES																						
pH	-	7.0	7.0	-	7.0	-	7.1	-	7.0	6.9	6.8	6.8	6.8	6.9	7.1	7.0	6.9	6.9	6.8	6.9	-	
Specific Conductance (umhos/cm @ 25°)	-	935	935	-	135	-	1000	-	240	240	163	431	114	124	488	517	618	340	243	194	-	
LABORATORY ANALYSES																						
Organic Compounds (ug/l)																						
Benzene	2.7	1900	2000	<0.01	<1	1.0	<1	0.78	450	290	<2	<1	<1	<1	<1	<1	120	<1	<1	<1	<1	<1
Chlorobenzene	<0.01	<10	<10	<0.01	<1	0.01	<1	<0.01	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	0.28	<10	<10	<0.01	<1	0.08	<1	<0.01	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethane	<0.01	120	80	<0.01	<1	1.1	<1	<0.01	<1	<1	<1	<1	<1	<1	<1	<1	5	<1	<1	<1	<1	<1
Ethylbenzene	>100	990	1400	0.06	<1	0.16	<1	0.50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	163	<1
Methylene Chloride	<0.01	<10	<10	<0.01	<1	1.0	<1	<0.01	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1,1-Trichloroethane	0.12	<10	<10	0.16	<1	0.68	<1	0.12	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	0.02	<10	<10	<0.01	<1	0.02	<1	0.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	<0.01	<10	<10	<0.01	<1	-	<1	0.02	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	14	3200	4800	<0.01	<1	-	<1	0.57	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	15	<1
Naphthalene	<0.01	32	16	0.40	<2	0.63	<2	1.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	-	<2
Bis (2-ethylhexyl) phthalate	-	660	<5	-	<1	-	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	-	<1
Xylene Isomers	-	8700	9000	0.30	<1	0.73	<1	2.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	(240)	<1
Styrene	-	<10	<10	0.07	<1	-	<1	0.06	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Inorganic Compounds (mg/l) [3]																						
Arsenic	-	0.13	0.16	-	0.002	-	0.29	-	0.002	0.004	0.002	0.001	0.001	0.002	0.003	0.002	0.18	0.009	0.004	0.006	0.10	0.002
Zinc	-	0.01	0.01	-	0.02	-	<0.01	-	0.01	0.01	0.01	0.01	0.02	0.01	0.01	<0.01	0.02	0.01	0.01	0.02	0.02	0.01

1) Because wells MW-1 through MW-4 have been re-numbered, Well numbers such as MW-1/U-1 indicate the new and old well designations: MW-1 is the new well designation and U-1 is the old well designation.

2) Samples analyzed in October 1983 were analyzed by a non-standard GC/MS technique, those analyzed in January 1985 were analyzed by EPA methods 624 and 625. See Table B-2 of Appendix B for a detailed description of the methods and the resulting detection limits.

3) All other CAM metals were not detected at the following detection limits (mg/l): antimony (0.3), barium (0.1), beryllium (0.01), cadmium (0.01), chromium (0.05), cobalt (0.05), copper (0.05), lead (0.05), mercury (0.005), molybdenum (0.02), nickel (0.05), selenium (0.001), silver (0.05), thallium (0.2), and vanadium (0.5).



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